

DIADEMODON TETRAGONUS SEELEY, 1894 (REPTILIA, THERAPSIDA): PROPOSED CONSERVATION OF GENERIC AND SPECIFIC NAMES. Z.N.(S.) 2249

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The object of the present application is to request the International Commission on Zoological Nomenclature to use its plenary powers to suppress a virtual *nomen oblitum*, which, so long as it remains an available name, represents a potential threat to the nomenclatural stability of an important group of therapsid reptiles. The names concerned are *Cynochampsia* Owen, 1860 (*Q.J. geol. Soc. Lond.*, vol. 16, p. 61) and *laniaria* (originally spelled *laniarius*) (*ibid.*), published in combination with the foregoing generic name. By this means, the Commission will conserve the names *Diademodon* Seeley, 1894 (*Phil. Trans. r. Soc. Lond. (B)* vol. 185, p. 1030) and *tetragonus* (*ibid.*), published in combination with the foregoing generic name.

2. At a meeting of the Geological Society of London on April 20, 1859 Owen (1859, *Proc. geol. Soc. Lond.*, vol. 16(1), p.61) described *Cynochampsia*, type species *laniaria* (by monotypy), a diademodontine cynodont from the Triassic of South Africa. Owen's 1859 paper was published unaltered in 1860 (*Q.J. geol. Soc. Lond.*, vol. 16, pp. 49–63); and in a footnote in a later publication Owen (1876, *Descriptive and illustrated catalogue of the fossil Reptilia of South Africa in the collection of the British Museum*, Brit. Mus. (nat. Hist.), London, p. 20) refers to the 1860 paper as containing the definition of *Cynochampsia laniaria*. In 1894 Seeley (*Phil. Trans. r. Soc. Lond. (B)* vol. 185, p. 1030) named the genus *Diademodon*, type species *tetragonus* (by original designation), but did not recognize any relationship between it and Owen's *Cynochampsia laniaria*, although in my view the two were conspecific. Despite the publication of numerous papers dealing with diademodontine anatomy and taxonomy, the name *Cynochampsia laniaria* was not referred to again after Owen's 1876 monograph until the fourth decade of the 20th century. In 1932 Broom (*Mammal-like reptiles of South Africa*, Witherby, London, p. 290) used *Cynochampsia laniaria* as a senior name, and noted that the holotype of *Cynochampsia* is the snout of an animal allied to *Gomphognathus* Seeley, 1895 (*Phil. Trans. r. Soc. (B)*, vol. 186, p. 1) (= *Diademodon*). In their bibliographic list of the Karoo vertebrates, Haughton & Brink (1954, *Palaeont. afr.*, vol. 2, p. 166) included *Cynochampsia* in the *DIADEMODONTIDAE* and noted that it is 'clearly allied to *Diademodon*'. In 1961 Lehman (in

Piveteau, J. (ed.), *Traité de Paléontologie*, p. 180) again referred to *Cynochampsia*; he included it in the EUDIADEMODONTINAE and noted that it can be compared to *Diademodon*.

3. More recently, Romer (1966, *Vertebrate Paleontology*, p. 372) listed *Cynochampsia* as a junior synonym of *Diademodon* but preceded the name *Cynochampsia* by a question mark. In 1972 Hopson & Kitching (*Palaeont. afr.*, vol. 14, p. 77) published a revised classification of the cynodonts in which they used the name *Diademodon tetragonus* and stated that, 'the earliest named diademodontine, *Cynochampsia laniaria*, is based on a fragmentary snout lacking postcanine teeth; we prefer to consider it a *nomen vanum*'. Their use of the term *nomen vanum* was as defined by Simpson (1945, *Bull. amer. Mus. nat. Hist.*, vol. 85, p. 27), but see Chorn & Whetstone (1978, *J. Paleont.*, vol. 52, p. 494). In his 1977 monograph, Kitching (Mem. Bernard Price Inst. palaeont. Res.) again considered *Diademodon* and *Cynochampsia* as synonyms. In 1979 Brink (*Bull. geol. Surv. S. Afr.*, vol. 65, p. 7) notes that whilst he regards *Cynochampsia* as a diademodontine, the name should be considered as a *nomen dubium*.

4. Majority usage has favoured the generic name *Diademodon*. Pertinent publications are:

Brink, 1955, *Palaeont. afr.*, vol. 3, pp. 3–39.

Crompton, 1963, *Proc. zool. Soc. Lond.*, vol. 140, pp. 697–753.

Fourie, 1963, *S. Afr. J. Sci.*, vol. 59, pp. 211–213.

Ziegler, 1969, *J. Palaeont.*, vol. 43, pp. 771–778.

Hopson, 1971, *Zool. J. linn. Soc. London*, vol. 50 (suppl. 1), pp. 1–21.

Jenkins, 1971, *Bull. Peabody Mus. nat. Hist.* vol. 36, pp. 1–216.

Crompton, 1972, *Bull. Brit. Mus. nat. Hist. (Geol.)* vol. 21, pp. 27–71.

Osborn, 1974, *Evolution*, vol. 28, pp. 141–157.

Brink, 1977, *S. Afr. J. Sci.* vol. 73, pp. 138–143.

Grine, 1977, *Palaeont. afr.*, vol. 20, pp. 123–135.

Kitching, 1977, *Mem. Bernard Price Inst. palaeont. Res.*, vol. 1.

Grine, 1978, *Palaeont. afr.*, vol. 21, pp. 167–174.

Brink, 1979, *Bull. geol. Surv. S. Afr.*, vol. 65, pp. 1–50.

The most influential classifications also use the generic name *Diademodon*:

Romer, 1966, *Vertebrate Palaeontology*, p. 372.

Hopson & Kitching, 1972, *Palaeont. afr.*, vol. 14, p. 77.

5. Owen (1860, *Q.J. geol. Soc. Lond.*, vol. 16; 1876, *Descriptive and illustrated catalogue of fossil Reptilia of South Africa*

in the collection of the British Museum) stated that the type of *Cynochampsia laniaria* was found in a 'claystone' nodule from the same locality in the Renosterberg Mountains, Cape Province, which yielded the type of *Galesaurus planiceps* Owen, 1860. However, Kitching (1977, *Mem. Bernard Price Inst. palaeont. Res.*) has noted that the strata exposed in the Renosterberg Range, which covers an area of between '20-30 square miles' are predominantly of *Lystrosaurus* Zone age. He has observed no *Cynognathus* Zone exposures in this area. To date, no diademodontine fossils have been found in *Lystrosaurus* Zone sediments but they are relatively abundant in *Cynognathus* Zone strata. Thus, Kitching (*ibid.*) finds 'the record of a diademodontid from the "Renosterberg" Cape very doubtful'. He considers that 'in all probability the type of *Cynochampsia laniaria* comes from the farm Renosterkop on the border between the Venterstad and Burgersdorp districts', where *Cynognathus* Zone strata are exposed. The type locality of *Cynochampsia laniaria* is thus doubtful.

6. By strict application of Article 23a-b of the International Code of Zoological Nomenclature, Broom's (1932, *Mammal-like reptiles of South Africa*) use of *Cynochampsia laniaria* as a senior name precludes its being considered a *nomen oblitum*. As such, Romer's (1966, *Vertebrate Palaeontology*), Hopson & Kitching's (1972, *Palaeont. afr.*, vol. 14), Kitching's (1977, *Mem. Bernard Price Inst. palaeont. Res.*, 1) and the present author's (Grine & Hahn, 1978, *Palaeont. afr.*, vol. 21; Grine, Hahn & Gow, 1978, *S. Afr. J. Sci.*, vol. 74; Bradu & Grine, 1979, *S. Afr. J. Sci.*, vol. 75) use of *Cynochampsia laniaria* Owen, 1860 as a junior subjective synonym of *Diademodon tetragonus* Seeley, 1894 is strictly incorrect — the name *Cynochampsia laniaria* has priority. However majority usage has favoured the name *Diademodon*, and most classifications also use *Diademodon*. The name *Cynochampsia laniaria* is unfamiliar to most present-day students, and its usage as a senior synonym would undoubtedly disturb a stable and universally accepted nomenclature of an important group of Triassic cynodonts.

7. I therefore request the Commission:

- (1) to use its plenary powers under Article 79 to suppress
 - (a) the generic name *Cynochampsia* Owen, 1860, and
 - (b) the specific name *laniaria* Owen, 1860, as published in the binomen *Cynochampsia laniaria*

for the purposes of the Law of Priority but not for those of the Law of Homonymy;

- (2) to place the generic name *Diademodon* Seeley, 1894 (gender: masculine), type species, by original designation, *Diademodon tetragonus* Seeley, 1894 on the Official List of Generic Names in Zoology;
- (3) to place the specific name *tetragonus* Seeley, 1894, as published in the binomen *Diademodon tetragonus*, on the Official List of Specific Names in Zoology;
- (4) to place the generic name *Cynochampsa* Owen, 1860 as suppressed under the plenary powers in (1)(a) above, on the Official Index of Rejected and Invalid Generic Names in Zoology;
- (5) to place the specific name *laniaria* Owen, 1860 as published in the binomen *Cynochampsa laniaria*, and as suppressed under the plenary powers in (1)(b) above, on the Official Index of Rejected and Invalid Specific Names in Zoology.